REMARKS

Certain typographical and/or grammatical errors in the specification are herein corrected. Also, enclosed herewith are red-ink sketches of revised versions of Figures 1 and 7A, each with a corrected reference numeral. Corrected formal drawings will be mailed to the Office after the Examiner approves the changes.

Should there be any questions regarding this matter, please contact the undersigned.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT:

The paragraph on page 20 has been amended as follows:

A communication system has a plurality of high altitude devices that are coupled to user terminals through a plurality of dynamic links. The terminal monitors and changes the multiple dynamic links as the position of the user terminal relative to the high altitude devices changes. The gateway terminal transmits to and receives [to said] from the user terminals through the high altitude devices using a plurality of datagrams.

IN THE SPECIFICATION:

Paragraph 3 on page 2, lines 6-11, has been amended as follows:

In one aspect of the invention, a communication system has a plurality of high altitude devices that are coupled to user terminals through a plurality of dynamic links. The terminal monitors and changes the multiple dynamic links as the position of the user terminal relative to the high altitude devices changes. The gateway terminal transmits to and receives [to said] from the user terminals through the high altitude devices using a plurality of datagrams.

Paragraph 8 on page on page 3, lines 19 and 20, has been amended as follows:

Figures 7A, 7B and 7C are flow diagrammatic [view] views for receiving datagrams according to the present invention.

Paragraph 9 on page 3, lines 21 and 22, has been amended as follows:

Figure 8 is [a] an organizational view of a software implementation of the present invention.

The paragraph bridging pages 5 and 6 (i.e., page 5, lines 23-27 and page 6, lines 1-9) has been amended as follows:

Communications platforms 18 are used as a communication node for gateway station 20 and user terminals 16F and 16M. Gateway station 20 has antennas 21A, 21B and 21C corresponding to a respective one of the high altitude communications platforms 18A, 18B and 18C. As will be described below, the pointing from mobile terminals 16M may be performed electronically. Although only one gateway station 20 is illustrated in the figure, those skilled in the art would recognize that various numbers of interconnected gateway stations 20 may be employed. As would be further described below, gateway station 20 with high gain antenna 21A, 21B 21C that has a narrow beam width. The antenna may need a tracking mechanism with tracking speed adequate enough to maintain a communication link with the platform 18 throughout the flight path. Gateway station 20 may be coupled to a gateway control circuit 22 which is ultimately connected to the Internet [24] 25, or a corporate intranet.

The paragraph bridging pages 9 and 10 (i.e., page 9, lines 22-28 and page 10, lines 1-14) has been amended as follows:

The links or beams are coupled to a demodulator 56 which demodulates signals and recovers the information in various [package] packages or datagrams. The recovered information [are] is provided to routing circuit 58 which has a hub and router circuit 76 coupled to a routing table 78 which is updated from direction control circuit 60. Hub and router circuit 76 is

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coupled to a transport circuit 80 which in turn is coupled to an applications circuit 82. As will be further described below, each user link has only a portion of the total signal to be received. These signal portions are referred to as datagrams in the present invention. Hub and router 76 [receive] receives various datagrams from the different user links [76] 26 and reassembles them. The various datagrams may not arrive in a sequential order. Thus, hub and router 76 assembles them and may have to shuffle the datagram packets to provide the desired reassembled signal. Once receiving an entire communication segment, transport circuit 80 couples the signal to various applications within the device such as a web browser or other programs. It should be noted that the fragments must all be reassembled in order to provide a coherent message. If any of the fragments are lost, the transport layer will order a retransmit of the missing portion of the datagram. The terminal may start a reassembly timer when it receives an initial fragment. If the timer expires before all the fragments arrive, the user terminal 52 may discard the surviving pieces without processing the datagram. A request for resending the signal may be initiated.

IN THE CLAIMS:

13. (Amended) A user terminal as recited in claim 12, further comprising:

a plurality of transmitting elements coupled to a transmitting digital beam forming network;

a transmitting hub and router circuit coupled to the transmitting digital beam forming network for making a communication into a plurality of datagrams and routing the plurality of datagrams through multiple dynamic links formed by transmitting digital beam forming networks and

a transmitting direction control circuit coupled to said hub and router circuit and to said transmitting digital beam forming network for forming relative position vectors of said user terminal and high altitude device,

said [for] transmitting digital beam forming network [directs] directing transmitting beams [at] to the high altitude communication devices.

21. (New) A method as recited in claim 18 prior to the step of reassembling, further comprising classifying the datagrams according to protocol.

22. (New) A method as recited in claim 18 prior to the step of reassembling, starting a reassembly timer counting a time;

when the time exceeds a predetermined time before all fragments of a datagram arrive, disregarding the datagram; and,

generating a resend signal.

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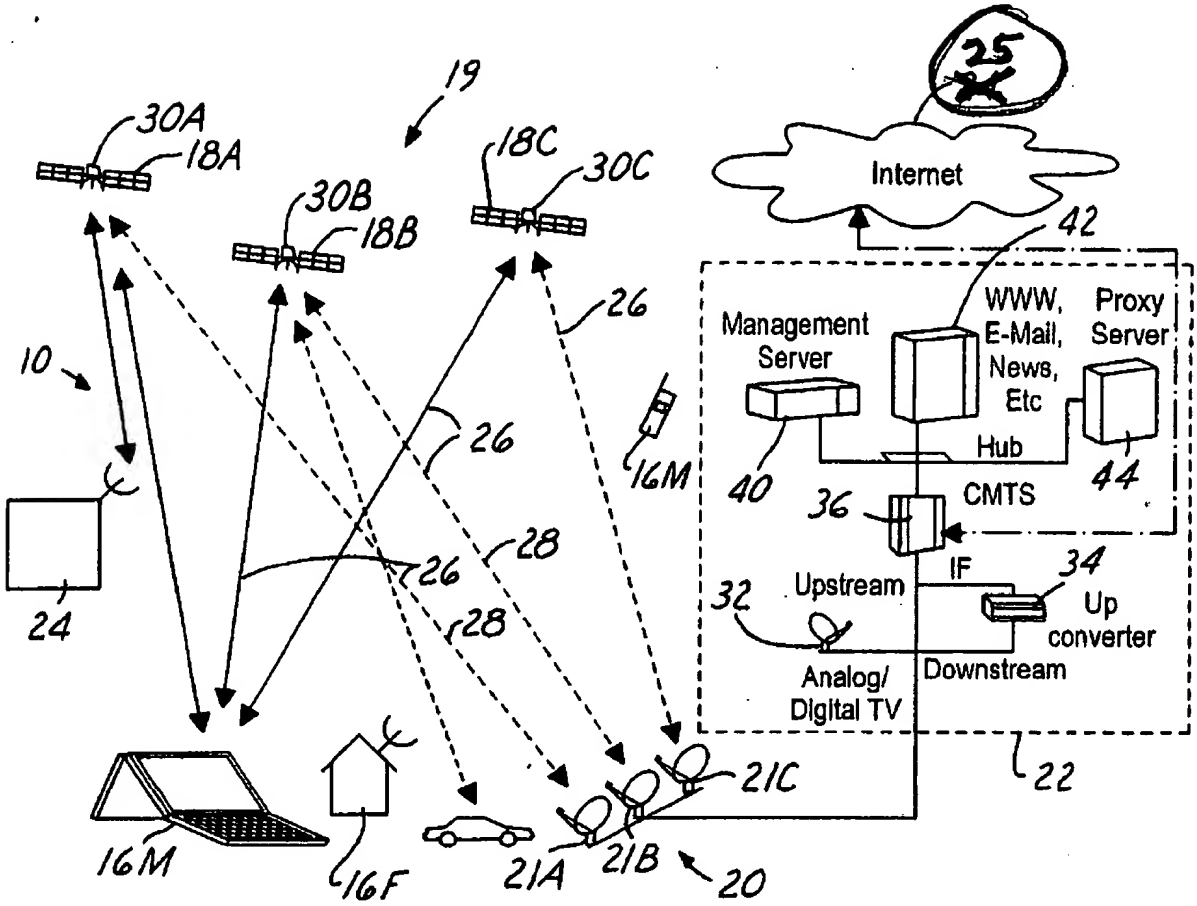

FIG. 1

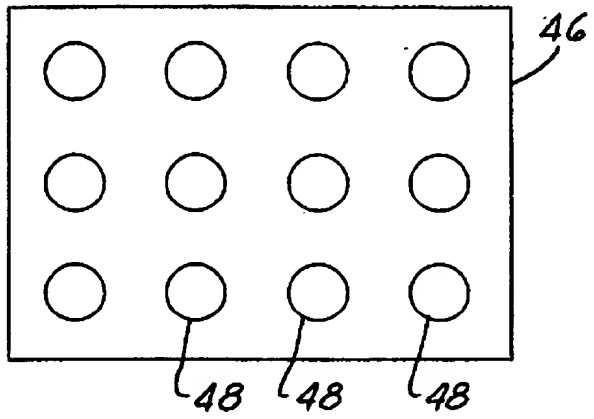

FIG. 2

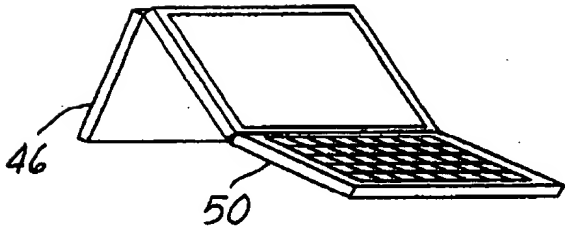

FIG. 3

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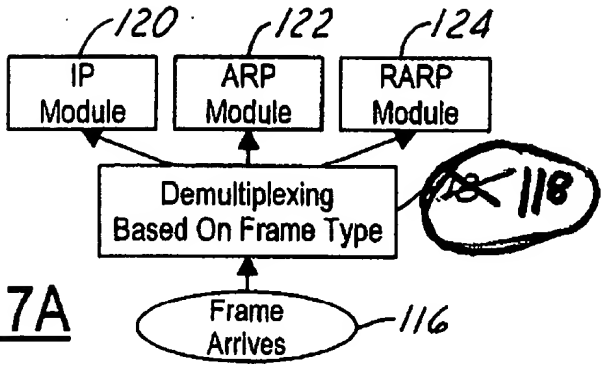

FIG. 7A

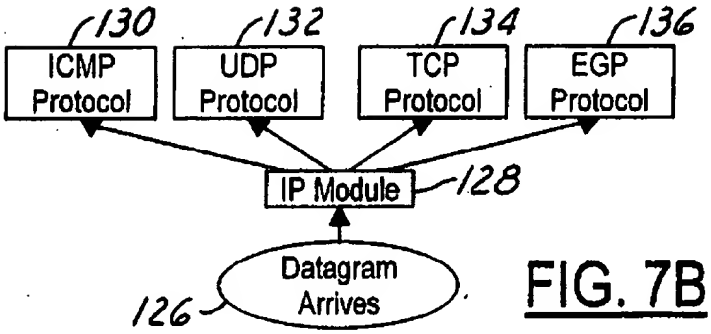

FIG. 7B

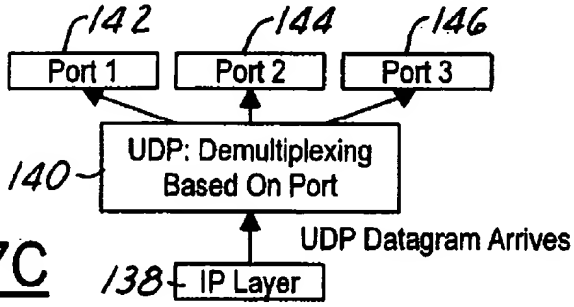

FIG. 7C

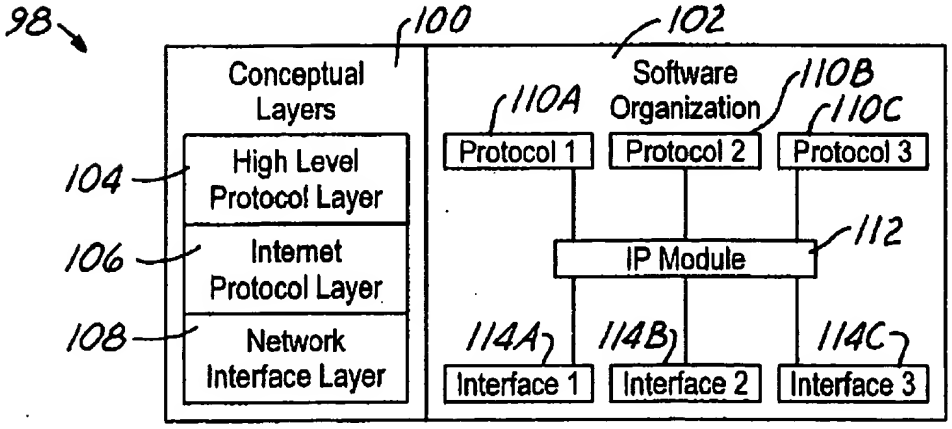

FIG. 8

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